

moted, and that though they might put aside abstract formulæ in daily practice, yet mathematical studies would, in training the mind, be of very high value.

#### HEALTH OF TOWNS.

AMIDST much that is otherwise thoroughly unspiritual and self-seeking in the tendencies of the present day, there is this great and redeeming feature, and one which every philanthropist must hail as the certain advent of that wide and embracing sympathy which is the real and essential spirit of practical religion,—we allude to the universal and gradually awakening interest now felt in the social condition of our poorer brethren.

To the efforts of such men as Bentham, Channing, Carlyle, and the late Dr. Arnold, the active apostles of a newer and more enlightened philosophy, much of the better feeling of the day is perhaps to be attributed; and if late, not the less certain we feel will be the evolution of that great principle long since enunciated though ignorantly derided, that the only legitimate aim and object of government, and all social polity, is the greatest happiness of the greatest number. As evidence of this improved feeling, we need only point to the fact that now everywhere inquiries are set on foot, and information eagerly sought, as to the actual condition of the people. The press abounds with investigations of the causes and suggestions for the remedy of our social evils. Recently in this country, what a vast mass of appalling facts has been brought to light by our factory commissions, our mines commissions, our sanitary reports, and in those details upon the state of our labouring population, urban and rural, so clearly elucidated in the valuable reports of Mr. Chadwick and the Poor Law Commissioners. All these have developed a fearful aggregation of evils, before undreamt of by the great mass of the community.\*

To the zealous exertions of such men as Lord Ashley in the cause of active benevolence, we may trace the source of much of the recent public interest in the moral and physical state of the poorer classes, and it is indeed a subject of sincere gratulation that, aided by a more enlightened policy among those in power, this nobleman's labours have tended already to effect much towards ameliorating the actual condition of our labouring population; but we must not disguise from ourselves the fact—a vast deal yet remains to be done; and it is by constant and strenuous individual efforts alone that a total and permanent benefit is to be hoped for. The broad and full tide of human progression is but the aggregate of every scattered rill of individual endeavours. Each step is significant and conducive to the great end.

As bearing more immediately upon the above views, we would now call especial attention to the late important and valuable report furnished by the royal commission on the health of towns, the result of two years arduous and unremitting investigation into the causes affecting the general sanitary condition of the community. It would be out of the question, within the limits of the present notice, attempting to offer any thing approaching to a detailed analysis of the accumulated mass of evidence (comprised in two thick folios), bearing upon a subject of so comprehensive a character as this must necessarily be, nor shall we attempt to follow the commissioners through the whole of the vast and varied field included in their inquiry.

Suffice it to observe, that to those who feel an interest in the subject these reports will amply repay perusal. Before adverting to the principal topics investigated by the commissioners, or to the general conclusions arrived at in the reports in connection with the recommendations for a more efficient system of sanitary jurisprudence and police throughout the kingdom, we shall take the opportunity of briefly alluding to the history of these investigations, and recapitulate the circumstances which induced the present inquiry.

It will perhaps be remembered that the pre-

valence of severe fever in the poorer districts of the metropolis, more particularly in Spital-fields, during the winter of 1837, having excited an alarm of a visitation of the cholera, induced the Poor Law Commissioners to institute immediate and strict inquiry into the sanitary condition of the districts affected; and especially with reference to the removable causes of disease. For these objects the able assistance of Drs. Arnott, Southwood Smith, and Kay were called into requisition, and the result of an investigation by these gentlemen was embodied in a valuable report dated May 12th, 1838. This report declared that the chief and constantly acting causes of destruction and death were comprised in the existence of bad ventilation and defective drainage. These facts, without loss of time were strongly represented by the commissioners to Lord John Russell, with urgent recommendations for the immediate adoption of some legislative measures for their removal. Although much public discussion at the time took place on the subject, little was done relative to this important matter until the close of the following session, when the Bishop of London, in his place in the House of Lords, called the attention of the Government to the report, and moved an address to her Majesty, praying for an inquiry as to the extent to which the causes of disease stated by the Poor Law Commissioners to prevail among the labouring classes of the metropolis, prevail also among similar classes in other parts of the kingdom. This address being carried, Lord John Russell directed the Poor Law Board to institute the inquiry; and the commissioners having accordingly in the November following given the requisite instructions to their assistants, the results of the consequent investigations were embodied in the lucid and voluminous report of Mr. Chadwick, presented in July, 1842. In the meantime, in 1840, also appeared the report of the select committee of the House of Commons "On the health of large towns and populous districts."

From all these it would appear that there had been no lack of investigation into the subject, and it might naturally be supposed that the result of these different inquiries, embodied in the published reports with folios of appended evidence from all imaginable quarters, would have been deemed sufficient to indicate the sources of the evils, and to have suggested a plain, straightforward course for some legislative remedy. It would seem, however, that these boards of inquiry are either endowed with an extreme power of vitality, or else some wonderful faculty of reproduction—at all events, they certainly possess the happy method of just arriving at that incompleteness of result, which entails the necessity for some further investigation, making invariably, like jealousy, "The more they feed on," That the physical condition of the poorer classes was most deplorable, that they were badly housed, with an insufficiency of every bodily aliment and comfort, were axioms which unhappily it did not require another royal commission under the sign manual, to demonstrate; these facts, which every way we turn are painfully self-evident; but there was, we presume, no reason why commissionships with their comfortable amenities, should be left entirely at the disposal of Whig governments; accordingly another including his Grace the Duke of Buccleugh, as chairman, was forthwith constituted for further inquiry into the state of large towns and populous districts. The result is that now before us, and however much we may feel opposed to the pernicious system of jobbing displayed in the perpetuation of these commissions, we are bound to concede all praise to the exertions and perseverance as well as to the full and comprehensive data furnished by this last inquiry. The chief causes proved by the concurrent testimony of medical men, and other intelligent witnesses examined, as more strongly affecting the physical condition of our labouring population, are (what had been before stated), viz. defective drainage and bad ventilation; to these, therefore, the attention of the commissioners was more specially directed. But the general subject included in the inquiry may be reduced to the five following heads, viz.:

1. Drainage, including house and main drainage, and the drainage of any space not covered with houses, yet influencing the health of the inhabitants.

2. The paving of public streets, courts, and alleys.

3. Cleansing; comprising the removal of all refuse matter not carried off by drainage, and the removal of nuisances.

4. Supply of water for public purposes and private use.

5. The construction and ventilation of buildings for promoting and securing the health of the inhabitants.

The conclusions arrived at from an examination of the above important matters are embodied in thirty distinct recommendations, already given in *THE BUILDER*,\* necessary, in the opinion of the commissioners, for the construction of whatever remedial measures may be subsequently adopted. These may be shortly summed up under the following general propositions:—

1. That the crown should have the control and supervision of all sanitary measures.

2. That the local authorities entrusted with the execution of such measures be armed with additional powers, and the districts placed under their jurisdiction should in many cases be enlarged, and made co-extensive with the natural areas for drainage.

3. That the necessary arrangements for drainage, paving, cleansing, and an ample supply of water, be placed under one administrative body.

4. That general sanitary regulations, relative to buildings and the width of streets; and that low lodging-houses be under the same inspection and control.

These it must be confessed are sufficiently comprehensive, and it only remains to be proved how far the wide field of operations here suggested would under existing circumstances be compatible with the legitimate functions of any one public body, and whether such an absolute system of central control amid the variety of adverse interests—both local and private, at present existing, would be practically attainable. In either case it behoves us to receive with extreme diffidence and caution a scheme of centralization which would go to place in the hands of any home secretary for the time being, so direct and extensive a power over the executive administration of the whole country. We shall, however, defer to a future occasion our examination of the mode in which the above objects are proposed to be carried out, more particularly as a bill embodying the suggestions of the commissioners is now before Parliament; to a simple abstract of which we now ask the attention of our readers.

#### LORD LINCOLN'S BILL

FOR THE IMPROVEMENT OF DRAINAGE AND SUPPLY OF WATER.

A copy of the Bill brought in by Lord Lincoln, and printed for the consideration of the members during the ensuing recess, is now before us. It has 325 clauses, occupies 118 pages, and contains many very important provisions. It extends to the whole of England and Wales, except the city of London and its liberties, and any place situate within a radius of five miles from Charing Cross, in the city of Westminster. The preamble is as follows:

"Whereas it has of late been made apparent, that the sewerage and drainage of the towns and populous districts of this realm, and the supply of water for the domestic use of the inhabitants, and for the due cleansing of drains, are extremely defective or utterly neglected, especially in the districts chiefly inhabited by the poorer classes of her Majesty's subjects, whereby excessive disease and great mortality have been occasioned: And whereas the general laws in force are wholly insufficient for the remedy of so great a mischief, and the like defects, for the most part, exist in the powers of trustees, acting under the authority of diverse local Acts: And whereas it is expedient that remedy should be had therein, and that the arrangement of the supply of water for domestic use, and for the cleansing of sewers, drains, houses, courts, alleys, and streets, should be combined, as often as may be practicable, with the management of the paving and cleansing of the surface of courts, alleys, and streets, and of the construction and maintenance of the drains and sewers, and other works subservient to the preservation of

\* The interest in such statistical inquiries is not confined to England. On the continent investigations on the social and physical condition of the masses have been ably developed in the researches of such men as Villermé, Piquet, De Gerando, Arminhac, Nobl, and Parent du Châtelet.